

PrintFleet Printer DCA

Version 4.2.1

User Guide



PRINTFLEET®

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PrintFleet Printer DCA User Guide.

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Chapter 1 Introduction

Welcome to PrintFleet Optimizer—a complete remote print management system designed to help owners, sales representatives, service technicians, and administrative personnel grow and streamline their business.

This guide covers all aspects of using and administering the PrintFleet Optimizer system, including:

- Using the Printer Data Collection Agent
- Managing local devices with Local Print Agent
- Printer DCA Settings in PrintFleet Optimizer

This chapter discusses:

- Device support
- Obtaining software updates
- Contacting Technical Support

1.1 Device support

PrintFleet strives to develop vendor-neutral software products, and to support as many models of printers, copiers, fax machines, and multifunction peripherals as possible. However, our products do not support all models available in the market. PrintFleet is continuously adding model support into our software products.

Supported models are not all supported to the same extent. For example, one model may be supported for all available data types, while another may only be supported for specific data types, such as device description and life page count.

PrintFleet software products collect information from networked imaging devices. Stand alone devices are not supported. Locally connected devices can be partially supported by using the PrintFleet Local Print Agent add-on application.

If you find a model that is not currently supported, contact your PrintFleet distributor to inquire about possible future support. If you are a direct client you can contact PrintFleet Technical Support.

Table 1 lists the data types that the Printer DCA attempts to collect from networked imaging devices during a network scan.

Table 1: Types of data collected by the Printer DCA

IP address	toner cartridge serial number
device description	maintenance kit levels
serial number	non-toner supply levels
meter reads (multiple)	asset number
monochrome or color identification	location
LCD reading	MAC address
device status	manufacturer
error codes	firmware
toner levels	miscellaneous (machine specific)

The Local Print Agent collects the following data types:

- Device driver name
- Device manufacturer
- Communications port

Note	Additional data collection (such as counts, toner level, and supplies) from local devices depends on the data the device itself supports.
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1.2 Obtaining software updates

New software releases are available on a periodic basis.

To update the Printer DCA software, see "Updating the Printer DCA software" on page 27.

1.3 Contacting Technical Support

For technical support, contact your PrintFleet distributor.

If you are a direct customer, please refer to Schedule A: PrintFleet Maintenance and Support in Appendix A: Printer Data Collection Agent Checklist and Installation Requirements.

Chapter 2 **Using the Printer Data Collection Agent**

The Printer DCA (Data Collection Agent) is a software application that collects information from supported printers, copiers, fax machines, and multifunction peripherals on a network, and transmits the data back to a PrintFleet Optimizer server.

Data from locally connected devices can also be collected, provided that the Local Print Agent application is installed on each computer connected to a local printer.

For more detailed information on device support, and for a list of data types that are collected, see “Device support” on page 1.

This chapter discusses:

- Obtaining/Distributing the Printer DCA software
- Installing and activating the Printer DCA
- Managing the Printer DCA service
- Configuring communication settings
- Configuring network scan settings
- Viewing queue, archive, and log files
- Configuring language and read/write settings
- Updating the Printer DCA software
- Reviewing the End User License Agreement (EULA)
- Understanding the network load associated with the Printer DCA
- Printer DCA Command Line Options

Note

If you have also purchased PrintFleet Suite Pro, you will have helpful built-in features for configuring and optimizing your Printer DCA settings (consult the *PrintFleet Suite Pro User Guide* for further details):

- Use PrintFleet Auditor to perform network scans with various settings until you are happy with the scan performance and results—these settings can then be replicated in the Printer DCA.
- Use PrintFleet Asset Tracker to embed missing data to the non-volatile memory of imaging devices, including serial number, asset number, location, and department.

2.1 Obtaining/Distributing the Printer DCA software

An easy and accessible way of distributing the Printer DCA software is by using the Printer DCA Install function included in PrintFleet Optimizer. This allows anyone with access to PrintFleet Optimizer to quickly install a Printer DCA from any Internet connected computer.

To obtain the Printer DCA installation file from PrintFleet Optimizer:

1. In PrintFleet Optimizer, on the **Administration** menu, click **DCA Install**. The DCA Install screen displays the most recent release notes and other software prerequisites.
2. Do one of the following:
 - In DCA 4.x tab, click the **Printer DCA 4.x.x.x.msi** link and save the file to the computer.
 - In DCA 3.x tab, click the **DCA_Install.msi** link and save the file to the computer.

If you are using PrintFleet Optimizer through a distributor, you can obtain the Printer DCA installation file from your distributor. The distributor chooses their own method of distributing the file, such as: email, or a download link.

2.2 Installing and activating the Printer DCA

The Printer DCA should be installed on an existing networked server to collect and transmit device data. If no server is available, the Printer DCA can be installed on a single networked computer that will remain powered on 24 hours a day, 7 days a week.

For Printer DCA installation requirements, see “Printer Data Collection Agent Checklist and Installation Requirements” on page 42.

Prior to installing the Printer DCA, you should obtain the information in the following table from the network administrator at the location. This will allow you to properly configure the Printer DCA.

Table 2: Information to Gather from the Network Administrator Prior to a Printer DCA Installation

Find out...	Solution
if there are local devices you want to monitor.	Once the Printer DCA is installed, you will have to enable local data collection and install Local Print Agent on applicable computers. See “Managing local devices with Local Print Agent” on page 29.
how many total printing devices reside on the network and how large the network is.	An additional Printer DCA should be installed on a separate computer for each 10,000 imaging devices on the network or 100,000 IP addresses.
if the network uses multiple subnets.	If so, take note of the subnets and IP ranges to ensure they are all included in the network scan range.
if the network uses a Virtual Private Network (VPN) or has Wide Area Network (WAN) links.	If so, the network timeout for the Printer DCA should be increased to 2000–4000 milliseconds.
if the company has multiple offices they want monitored.	If so, a single Printer DCA may be used if the networks are connected via a VPN, however, it is recommended that a Printer DCA is installed at each location.

The Printer DCA has an easy to use installation wizard that in many cases will configure the settings you need to collect data from networked printing devices. To collect data from local devices, and

to further configure settings, you will need to open the Printer DCA application after installation.

Note

Some virus detection vendors (such as Symantec) are now using crowd-based information to determine potential threats. Unfortunately, this methodology is prone to producing false positives, particularly for executable files that are not widely distributed among the sample population. As a result, you may find that the DCA installer is being flagged as a possible threat by your virus detection software. When this happens it may be quarantined, which prevents it from being installed. If this occurs, contact your system administrator or virus detection vendor for information about removing it from quarantine.

For more information about the Symantec issue specifically, visit this page: <http://community.norton.com/t5/Norton-Internet-Security-Norton/Clarification-on-WS-Reputation-1-detection/m-p/232155/highlight/true#M112299>

To install and activate the Printer DCA:

1. Double-click the filename `Printer DCA 4.x.x.x.msi` installation file.
2. The Printer DCA Setup Wizard opens to the Welcome to the Printer DCA Setup Wizard screen. Click **Next** to continue.
3. Read through the End-User License Agreement, check **I accept the terms in the License Agreement** and click **Next** to continue. If you do not accept the terms, the installation process will not continue.
4. In the Select Installation Folder screen, either leave the default folder displayed, or enter a new destination folder. Click **Next** to continue.
5. In the Ready to Install screen, click **Install** to begin installation or click **Cancel** to exit.
6. In the Completing the Printer DCA Setup Wizard screen, leave checked or uncheck **Launch Printer DCA** and click **Finish**.
7. After the Printer DCA is launched, in the second End-User License Agreement, select **Accept** to continue or select **Decline** to not continue.
8. In the Welcome to the Printer DCA-Setup Wizard, select the language from the drop down list and select **Next**.
9. In the Printer DCA Activation screen, enter the following:
 - Enter the server information for the server that the Printer DCA will be sending information to in the **Server** box.
 - Enter the PIN code in the **PIN Code** box.
 - Optionally, if the location is using a proxy server that you want to configure at this point (you will also be able to do so

after installation), click **Show Proxy Configuration**. See "Using proxy settings" on page 10.

- Click **Next**.

Note	<p>During the activation process the Printer DCA performs a web service discovery. If it fails to detect the web service, it automatically performs a subsequent test to help diagnose the nature of the problem. This subsequent test involves sending the following http network request:</p> <p>http://networktest.printfleet.com/</p>
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10. In the Scan Settings screen, you will be shown a list of preconfigured IP ranges that will be added to your default Printer DCA network scan. This can be changed after installation is complete if necessary. Click **Next**.
11. In the Intelligent Updates screen, you will be given the option to disable Intelligent Updates. It is recommended that **Allow Intelligent Updates** remains selected unless there is a strong reason to turn it off. See "Enabling Intelligent Update" on page 12.
12. You also have the option to disable Remote Configuration. Remote Configuration allows you to view and edit values for certain device attributes remotely via PrintFleet Optimizer. The **Enable Remote Configuration** option is recommended. See "Enabling Remote Configuration" on page 12. Click **Next**.
13. In the Setup is Complete screen, by default, the **Open the Printer DCA Interface** and **Start the Printer DCA Service** are both selected. Optionally, you can turn off one or both of these options. Click **Finish**.

At some point over the life of the Printer DCA installation, you may need to reactivate it, for example, if you were given an activation code with an expiry date, or if you need to redirect the Printer DCA to a new server. You can enter a new activation code from an existing Printer DCA installation.

To reactivate the Printer DCA:

1. On the **Tools** menu, click **Reactivate Printer DCA**.
2. If you are redirecting the Printer DCA to a new server and/or port, enter the new information in the **Server** box.
3. Enter the new activation code in the **PIN Code** box.
4. Click **Activate**.

2.3 Managing the Printer DCA service

The Printer DCA runs as a Windows service by default. Alternatively, the Printer DCA can be set up as a scheduled task.

Note

PrintFleet Optimizer includes Remote Configuration functionality which enables reading and updating device information for supported Canon devices in real time. If you want to use this functionality you should not install the Printer DCA as a scheduled task.

Installing and starting the Printer DCA service

The Printer DCA service can be installed, uninstalled, started, or stopped at any time. You may need to reinstall the Printer DCA service if you have previously been running the Printer DCA as a scheduled task, or if the Printer DCA service was uninstalled for any other reason. If you have been running the Printer DCA as a scheduled task, delete the scheduled task before reinstalling the Printer DCA service.

The Printer DCA service starts automatically. If you have enabled the Remote Configuration functionality, when the Printer DCA service starts it will run a process called pf-relay.exe using port 9976/tcp. This process enables PrintFleet Optimizer to connect directly to supported Canon devices and is required if you are going to use the Remote Configuration functionality.

To install, uninstall, start, or stop the Printer DCA service:

- Under the **Status** tab of the Printer DCA, in the **Service** area, beside **Printer DCA Status**, click the **Options** button, and select the operation you want to perform.

Setting up the Printer DCA as a scheduled task

To set up the Printer DCA as a scheduled task instead of a service, you must first uninstall the Printer DCA service, and then create the Printer DCA scheduled task. The procedure for creating a scheduled task varies according to your operating system.

To uninstall the Printer DCA service:

- In the **Status** tab, click **Options** and select **Uninstall**.

To create a scheduled task for the Printer DCA using Windows 7, Windows 8, Windows Server 2008 R2, or Windows Server 2012:

- Navigate to **Administrative Tools**, and open **Task Scheduler**.
- In **Task Scheduler**, from the **Action** menu, click **Create Task**.
- In the **Create Task** dialog box, on the **General** tab, in the **Name** box, type a recognizable name for the task (such as DCATask).
- In the **Security options** area:
 - Select **Run whether user is logged in or not**.
 - Select **Run with highest privileges**.

5. Click the **Triggers** tab.
6. On the **Triggers** page, click **New**. The **New Trigger** dialog box opens.
7. In the **New Trigger** dialog box:
 - In the **Settings** area, select **Daily**.
 - In the **Advanced Settings** area, select the **Repeat task every** check box, choose **30 minutes** from the drop-down list, and set the duration to **Indefinitely**.
 - Also in the **Advanced Settings** area, select the **Enabled** check box.
 - Click **OK**.
8. Click the **Actions** tab.
9. On the **Actions** page, click **New**. The **New Action** dialog box opens.
10. In the **New Action** dialog box:
 - In the **Settings** area, use the **Browse** button to navigate to and select the PrinterDCAService.exe file.
 - In the **Add Arguments** box, type *commandline*.
 - Click **OK**.
11. Click the **Settings** tab.
12. On the **Settings** page, clear the **Stop the task if it runs longer than** check box.
13. Click **OK**.

2.4 Configuring communication settings

During the Printer DCA installation, the Printer DCA will attempt to establish basic communication with the central server using either HTTPS (default) or HTTP (secondary). Proxy settings can also be configured during installation, or at any time afterwards. If communication with the server is successful during installation, it is not necessary to change the communication method, port, or proxy settings.

Changing and testing the communication method and port

There are two methods the Printer DCA can use to send information to the central server: HTTPS and HTTP. During installation, the Printer DCA will attempt to establish communication with the central server, first, with HTTPS (port 443), and if that fails, HTTP (port 80). If you don't use the default port for your chosen method of communication, you will need to change this in the Printer DCA. You can change the communication method and port at any time.

To change the Printer DCA communication method and port:

1. Under the **Communication** tab of the Printer DCA, in the **Communication Method** area, type in the protocol, followed by the hostname.

2. Optional--only if you use a non-standard port--enter the port number after a colon after a hostname. For example, printfleet.com:84.
3. Click the **Test** button to verify that communication can be established with the central server. You will receive either a success or failure message.

Note

When the Printer DCA performs the test, if one or more files fail to transmit, it automatically performs a subsequent test to help diagnose the nature of the problem. This subsequent test involves sending the following http network request:

http://networktest.printfleet.com/

4. Click **Save** to retain changes.

If you are having problems obtaining successful communication between the Printer DCA and the central server, see "Troubleshooting Printer DCA communication problems" on page 12.

Using proxy settings

If a network being scanned with a Printer DCA uses a proxy server, you can configure the Printer DCA to use the proxy settings, which will allow the Printer DCA to scan the network.

Note

Each Windows login account has its own proxy configuration. When the **Use Windows proxy settings** option is selected, the Printer DCA service and the Printer DCA application GUI each use their own configuration. This can result in different settings between when a user runs the Printer DCA application and when the service runs using local system account settings.

To use a manual proxy configuration:

1. Under the **Communication** tab of the Printer DCA, in the **Proxy Configuration** area, select one of the following: **Use Windows proxy settings** (no other configuration required), **Use custom proxy settings**, or **None** (to disable proxy settings).
2. If you have selected **Use custom proxy settings**, enter the server and port information in the **Server** and **Port** boxes, respectively.
3. If the proxy server requires authentication, select the **Authentication** check box, and then do one of the following:
 - Select **Default** to use the authentication currently being used on the computer installed with the Printer DCA.
 - Select **Custom**, and then click **Load Current** to populate the fields with the current authentication being used by the computer installed with the Printer DCA, or choose the

appropriate authentication type from the **Authentication Type** drop-down list and enter username, password, and domain information in the **Username**, **Password**, and **Domain** boxes, respectively.

Note	When you click Load Current , all fields except for Password are populated.
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4. In the **Communication Method** area, click **Test** to verify the settings are working.
5. Click **Save**.

Changing the web service settings

The **Web Service Timeout** determines the maximum time that will be allowed for communication between the Printer DCA and the central server. By default, the **Web Service Timeout** is 30 seconds; if necessary, the timeout can be increased or decreased at any time.

To change the web service timeout:

1. Under the **Communication** tab, in the **Communication Settings** area, enter or select the desired timeout in the **Web Service Timeout** box.
2. Click **Save**.

The **Web Service Discovery** timeout controls the initial connection to the server and the auto-selection of http/https. By default, the **Web Service Discovery** timeout is 5000 milliseconds; if necessary, the discovery timeout can be increased or decreased.

Note	During the web service discovery a DNS lookup function is used to look for a DNS TXT record.
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To change the web service discovery timeout:

1. Under the **Communication** tab, in the **Communication Settings** area, enter or select the desired timeout in the **Web Service Discovery** box.
2. Click **Save**.

By default, the Printer DCA determines the location of the PrintFleet Optimizer web services by performing a web service discovery using the domain name you specified when setting up PrintFleet Optimizer. If you subsequently change your domain name, you can add a DNS TXT record in which you can specify the new location of the web services. The next time the Printer DCA performs the web service discovery it will detect the new location.

To change the web service location:

- Create a DNS TXT record, including either of the following:
 - dca4ws=http://your_new_domain/PFE_WS/

- dca4ws=https://your_new_domain/PFE_WS/
where *your_new_domain* is your new domain address (such as mycompany.com).

Note	The web service location is not stored by the Printer DCA, so the DNS TXT record will need to remain.
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Enabling Intelligent Update

When Intelligent Update is enabled, the PrintFleet administrator can remotely update and perform other remote actions on the Printer DCA. This is important to ensure you are always able to collect the highest quantity and quality of information available. See "Remotely managing Printer DCA installations using Semaphore" on page 39.

To enable Intelligent Update:

1. Under the **Communication** tab, in the **Communication Settings** area, select the **Enable Intelligent Update** check box.
2. Click **Save**.

Enabling Remote Configuration

If you have devices that support remote configuration, and you want to be able to configure them remotely using the Remote Configuration functionality automatically provided with PrintFleet Optimizer, you will need to ensure that the **Enable Remote Configuration** check box is selected.

To enable Remote Configuration:

1. Under the **Communication** tab, in the **Communication Settings** area, select the **Enable Remote Configuration** check box.
2. Click **Save**.

Note	To apply this setting you must save your changes and restart the Printer DCA.
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Troubleshooting Printer DCA communication problems

If you are unable to obtain successful communication between the Printer DCA and the central server after setting the proper communication method and port (see "Changing and testing the communication method and port" on page 9) and configuring proxy settings if necessary (see "Using proxy settings" on page 10), use

the following table to troubleshooting potential communication problems.

Table 3: Troubleshooting Printer DCA Communication Problems

Check if...	If not...
the selected send method (HTTP or HTTPS) corresponds with the port you have chosen to transmit data through.	change the send method to correspond with the port number chosen, or change the port number to correspond with the send method chosen.
the port you have selected is open on the network.	have the network administrator open the selected port.
the PrintFleet distributor has a valid SSL security certificate, if you are attempting to send via HTTPS.	see the <i>PrintFleet Optimizer User Guide</i> for instructions on setting up a proper security certificate.
the Printer DCA is successfully collecting data from the internal network by looking in the <code>data_queue</code> or <code>data_archive</code> folder located in the folder where the Printer DCA was installed—if there is data in this folder, the Printer DCA is successfully collecting data.	the problem is not with the send method, but with the collection of data on the internal network.
the destination URL is correct by looking in the Summary area of the Status tab in the Printer DCA.	obtain a new PIN code and reactivate the Printer DCA. See “Installing and activating the Printer DCA” on page 4.
the network is free of firewalls.	there are not usually problems with firewalls, but ask the network administrator if there is a chance this may be the problem.

2.5 Configuring network scan settings

The Printer DCA network scan settings determine how the Printer DCA collects information from the internal network, and provides options for transmitting the information to the central server. Scan profiles can be used to configure multiple types of network scans that will run independently. For example, you might want different scan and transmission settings for networked and local devices.

Network scan settings are independent of communication settings, which specify how the Printer DCA will communicate with the central server, and if and how the central server can communicate with the Printer DCA and/or a specific device on the network (see “Configuring communication settings” on page 9).

Managing scan profiles

You can use profiles to configure multiple types of network scans. For example, you might want to scan networked devices every hour, and local devices once a day—these would be two different scan profiles. You might also want a different scan profile for one or two high priority devices that you want to scan more frequently.

Depending on your environment, you might have multiple uses for scan profiles, or you might not need more than one. When you first install the Printer DCA, you will have one scan profile called `Default`.

To create a new scan profile:

1. Under the **Scan** tab, beside **Scan Profile**, click **Add**.
2. In the **New Profile** dialog box, enter a name to associate your new profile with, and click **OK**. A **Copy Current Profile?** dialog opens.
3. In the **Copy Current Profile?** dialog, do one of the following:
 - Click **Yes** if you want to copy the settings from the **General**, **Advanced**, and **Local** tabs of the current profile.
 - Click **No** if you want to manually configure all settings under the **General**, **Advanced**, and **Local** tabs.
4. Click **Save**.

To edit an existing scan profile:

1. Under the **Scan** tab, select the profile you want to edit from the **Scan Profile** list.
2. Edit settings as applicable under the **General**, **Advanced**, and **Local** tabs.
3. Click **Save**.

To delete a scan profile:

1. Under the **Scan** tab, select the profile you want to delete from the **Scan Profile** list.
2. Beside **Scan Profile**, click **Delete**.
3. In the **Delete Profile?** dialog box, click **Yes**.

Warning

If you delete a scan profile, you will no longer be collecting information from the devices specified in the profile, unless they are included in a different profile.

Specifying which devices to scan

The Printer DCA only scans the IP addresses and/or hostnames specified in each scan profile. When the Printer DCA is first installed, it selects a default set of IP addresses to scan based on either

Active Directory or, if that is not available, the primary network card on the system installed with the Printer DCA. These IP addresses are automatically added to the `Default` scan profile.

If the default set of IP addresses captures all the devices on the network that you want to scan, and you do not want multiple scan profiles, you do not have to further specify the devices for the Printer DCA to scan. If, however, you want to adjust the devices included in the default scan, or if you have more than one scan profile, you will need to further configure which IP addresses and/or hostnames to include.

Single IP addresses, ranges of IP addresses, and hostnames can all be used to specify devices to include or exclude from a network scan. There are two general purposes for excluding a device or range of IP addresses from a network scan: (1) to specifically not collect information from a device or set of devices; or (2) to remove IP addresses that you know do not have printing devices on them to create the most efficient scan range (shorter network scan time).

Important	It is recommended that the network administrator at the location with Printer DCA installed help set up the Printer DCA scan range.
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To add devices to, or exclude devices from, a Printer DCA network scan range:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **General** tab, in the **Ranges** area, do one or more of the following:
 - To automatically obtain an additional default scan range (from the one specified during Printer DCA installation), select **Default Range**, and then select either **From Active Directory** or the applicable network card for the system installed with the Printer DCA.
 - To specify a range of IP addresses, select **IP Range**, and enter the IP address of the beginning of the range in the left box, and the IP address of the end of the range in the right box.
 - To specify a single IP address, select **IP Address** and enter the IP address in the box.
 - To specify a hostname, select **Hostname** and enter the hostname in the box.
3. Click **Add** or **Exclude**.
4. Repeat steps 2-3 as necessary.
5. Click **Save**.

To remove devices, or device exclusions, from a Printer DCA network scan range:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **General** tab, in the **Ranges** area, under **Scan List**, do one of the following:
 - To remove one or more individual items from the scan range, select the item, and then click **Remove**.
 - To remove every item from the scan range, click **Clear**, then click **Yes** in the **Clear Scan List?** dialog that opens.
3. Click **Save**.

You can also export and import entire lists of scan ranges. To create a file with scan range settings, save a text file with each specification on a separate line. Use parentheses to indicate scan range exclusions. The following is an example of the contents of a text file ready for import; the example indicates, from top to bottom: an IP range to include, a single IP address to include, a hostname to include, and an IP range to exclude.

```
10.0.0.1-10.0.0.200
10.0.1.10
examplehostname
(10.0.0.10-10.0.0.50)
```

To export current scan range settings to a text file:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **General** tab, in the **Ranges** area, under **Scan List**, click **Export**.
3. Save the file to the desired location.

To import scan range settings from a text file:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **General** tab, in the **Ranges** area, under **Scan List**, click **Import**.
3. Select and open a properly formatted text file.
4. Click **Save**.

You can also use PrintFleet Suite Pro (purchased separately) to determine the appropriate scan ranges prior to configuring the Printer DCA.

To determine the optimal IP range settings using PrintFleet Suite Pro:

1. In PrintFleet Auditor, click **Advance Scan**.
2. Do one of the following:

- If the location has less than 100 users, click **QuickScan**, and then click **Go**.
 - If the location has 100 users or more, click **Custom IP Range** and specify IP ranges given by the network administrator or click **Fill Ranges** to detect IP ranges automatically, and then click **Go**.
3. If the scan takes less than 25 minutes, and all document output devices were found, you can use these settings for the Printer DCA. If the scan takes longer than 25 minutes, analyze the results to determine exactly which ranges need to be scanned. Do not include ranges that have no document output devices on them, and only include the portions of ranges that do have document output devices on them. For instance, if you are scanning a subnet of 192.168.1.1–192.168.1.254, but there are only document output devices from 192.168.1.1–192.168.1.50 and 192.168.1.200–192.168.1.250, you should input these two ranges instead of the entire subnet to make the Printer DCA scan more efficient.
 4. Input your tightened scan ranges into the Advance Scan settings of Auditor, and perform another scan to verify that the scan now takes less than 25 minutes. If it still takes longer than 25 minutes, and you cannot tighten the scan ranges any further, you may want to install more than one Printer DCA at the location.

Enabling scanning of network and/or local devices

You must enable at least one of network or local device scanning for the Printer DCA to collect data. For local device scanning to work, you must also have Local Print Agent installed on computers connected to the local devices you want to scan. See “Managing local devices with Local Print Agent” on page 29.

If you have created separate profiles for networked and local devices, you will enable network device scanning in one, and local device scanning in the other. For more information on scan profiles, see “Managing scan profiles” on page 14.

To enable scanning of network and/or local devices:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see “Managing scan profiles” on page 14.
2. Under the **General** tab, in the **Scanning Options** area, do one or both of the following:
 - Click **Network Devices** to enable scanning of networked printing devices.
 - Click **Local Devices** to enable scanning of locally connected printing devices.
3. Click **Save**.

Enabling broadcast scanning

Broadcast scanning targets each IP address specified at the same time, rather than in consecutive order. This makes the Printer DCA network scan faster. Some networks may not allow this type of scanning for security purposes. Typically, this is not needed.

To enable broadcast scanning:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **General** tab, in the **Scanning Options** area, click **Enable Broadcast**.
3. Click **Save**.

Enabling Rapid Scan

Rapid Scan allows the Printer DCA to use multithreading, which significantly decreases the time it takes for the Printer DCA to complete a network scan.

To enable Rapid Scan:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **General** tab, in the **Scanning Options** area, click **Enable Rapid Scan**.
3. Click **Save**.

The number of scan threads can be controlled using the **Number of scan threads** box in the **Miscellaneous** area on the **Advanced** tab. The setting defaults to a reasonable value for the current system.

Enabling Printer Job Language (PJL)

Printer Job Language is an additional method that can be used to obtain information from devices connected to HP Jet Direct servers.

Warning	Enabling PJL can result in print jobs being sent to dot matrix and other old model or special use printers. Using PJL will result in a limited amount of information being collected from some devices connected to HP JetDirect print servers.
----------------	---

To enable PJL:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **General** tab, in the **Scanning Options** area, click **Enable PJL**.
3. Click **Save**.

Setting the scan interval

The scan interval determines how often the Printer DCA will scan the network. The default scan interval is 60 minutes.

It is generally not useful to set a scan interval for more than every 60 minutes. For example, new information is posted to PrintFleet

Optimizer every 10 minutes, but new alerts are generated approximately every 30 minutes.

Note

The scan interval is the time from the end of one scan to the start of the next scan.

Note that the frequency with which files are transmitted to your PrintFleet server is independent of the scan interval. By default, the Printer DCA will perform a check every 5 seconds for any queued files awaiting transmission. If there are any queued files, the Printer DCA will attempt to transmit them to your PrintFleet server. In the event that the transmission of a file is unsuccessful, the Printer DCA will not attempt to transmit any other files, but will wait 30 seconds and then attempt the transmission of the file again. It will automatically continue to extend the retrial interval by 30 second increments as necessary up to a maximum of 5 minutes. From that point the Printer DCA will make an attempt every 5 minutes to transmit the file until it is successful, at which point it reverts back to the default 5 second interval and proceeds to transmit any other queued files. This automatic throttling behavior prevents your PrintFleet server from becoming overwhelmed by requests when it is experiencing problems.

To change the scan interval:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **General** tab, in the **Transmission Options** area, type or select the desired scan interval, in minutes, in the **Scan Interval** box.
3. Click **Save**.

If necessary, you can force the Printer DCA to start scanning immediately, regardless of the current scan interval. You might do this if you have made changes to the Printer DCA configuration and want to immediately see the result of those changes without waiting for the next scheduled scan.

To force an immediate scan:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. At the bottom of the Printer DCA screen, click **Force Scan**.

Setting the network timeout

The network timeout is the amount of time that the Printer DCA will wait for a networked device to respond back with its information. The default network timeout is 5000 milliseconds.

The network timeout only needs to be adjusted if the Printer DCA is not discovering networked devices. If, when you perform a Printer DCA scan, certain networked devices are not being discovered, you may need to increase the network timeout (for example, you might

try doubling it to 10,000 milliseconds). However, the higher the network timeout is set, the longer the Printer DCA scan will take.

To change the network timeout:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **General** tab, in the **Transmission Options** area, type or select the desired network timeout, in milliseconds, in the **Network Timeout** box.
3. Click **Save**.

Note

This setting only affects how long the Printer DCA will wait for the initial discovery of networked devices. For each printer that has been discovered the Printer DCA will wait up to 60 seconds to receive complete information from the device.

Setting the Local Print Agent timeout

The Local Print Agent timeout is the amount of time that the Printer DCA will wait for the Local Print Agent application to respond back with information from a locally connected device. The default Local Print Agent timeout is 30,000 milliseconds per system. Local device collection takes substantially longer than networked device collection because of the extra step needed to go through the connected computer via the Local Print Agent application.

The Local Print Agent timeout only needs to be adjusted if the Printer DCA is not collecting complete information from locally connected devices. There may be other reasons that the Printer DCA is not collecting complete information, for example, the device does not store a specific data field (toner levels, etc.), or a Local Print Agent is not installed on the computer connected to the local device. See "Managing local devices with Local Print Agent" on page 29.

To change the Local Print Agent timeout:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **General** tab, in the **Transmission Options** area, type or select the desired Local Print Agent timeout, in milliseconds, in the **Local Agent Timeout** box.
3. Click **Save**.

Setting the number of SNMP retries

The number of SNMP retries entered in the Printer DCA settings is the number of times the Printer DCA will attempt to get information from a device that is responding with incomplete or no information. By default, this value is set to 5. Increasing the number of SNMP retries may increase the completeness of a Printer DCA scan, but will also increase the amount of time it takes to complete a network scan.

To change the number of SNMP retries used:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **General** tab, in the **Transmission Options** area, type or select the desired number of SNMP retries in the **SNMP Retries** box.
3. Click **Save**.

Using Focus Scans

Without using Focus Scan, the Printer DCA will scan each IP address, IP range, and hostname specified in the scan range settings every time the Printer DCA performs a full network scan. Using Focus Scan, you can specify a periodic interval for the Printer DCA to perform a full network scan, and the scans performed between the intervals will scan only devices found during the previous full network scan.

Using Focus Scan can decrease the amount of total time and bandwidth that the Printer DCA occupies, particularly on large networks, while ensuring that new or relocated document output devices are discovered on a periodic basis.

To enable Focus Scan:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **Advanced** tab, in the **Focus Scan Options** area, select the **Enable Focus Scan** check box.
3. Specify how often you want a full network scan to run by selecting either **Days**, **Hours**, or **Minutes** from the list, and entering a number for the interval beside **Full Discovery Every**. For example, if you enter 5 and select **Days**, a Focus Scan will run once every five days.
4. Click **Save**.

Storing SNMP community strings

Community strings act as passwords on networked devices that limit access via SNMP. Since the Printer DCA uses SNMP to collect data from devices, any custom community strings on printing devices put in place by network administrators can be manually entered in the Printer DCA to allow it SNMP access to the device. Most devices have a community string of `public`, and the Printer DCA stores a community string of `public` by default.

To store community strings in the Printer DCA:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Do one or more of the following under the **Advanced** tab, in the **SNMP Community Strings** area:
 - To add a community string, type an applicable community string in the text box, and click **Add**. Repeat as necessary.

- To remove a community string, select a previously entered community string, and then click **Remove**.

Note

Although it is possible to remove the `public` community string, you should only do so if you know that all of the devices you want to monitor are accessible via custom community strings.

If you remove the `public` community string, a **Fix** link will automatically appear below the list to allow you to replace the `public` community string later if necessary.

- To reorder the list of community strings, click to highlight a community string, and then click either the **Up** or **Down** button. Repeat as necessary. When the Printer DCA encounters a device using a community string during the network scan, it will attempt to use the first community string listed, then the next, etc., until it is successful or it runs out of community strings to attempt.

3. Click **Save**.

To replace the public community string in the Printer DCA:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. On the **Advanced** tab, in the **SNMP Community Strings** area, click **Fix**. The `public` community string will reappear in the list and the **Fix** link will disappear.
3. Click **Save**.

Masking private data

For privacy reasons, the following types of information that the Printer DCA collects can be masked in the transmission file to the central server:

- IP addresses of devices included in the network scan
- Telephone numbers collected from devices (masked by default)
- Printer DCA host system information (IP address, MAC address, subnet, etc.)

To mask private information in Printer DCA transmission files:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **Advanced** tab, in the **Privacy Options** area, do one or more of the following:
 - Select the **Enable IP Masking** check box to mask device IP addresses.

- Select the **Enable Phone-Number Masking** check box to mask telephone numbers collected from devices (masked by default).
- Select the **Enable Printer DCA Host Info Masking** check box to mask Printer DCA host system information.

3. Click **Save**.

Enabling SNMP traps

SNMP traps are alerts generated by a device. Using SNMP traps can help ensure you have the most current device information without having to continuously request information. For example, if a device experiences an error, by enabling SNMP traps, the Printer DCA can be notified of the error immediately instead of waiting until the next scheduled Printer DCA scan.

Prior to enabling SNMP traps on the Printer DCA, you need to specify in the internal configuration for each device that SNMP traps should be sent to the IP address of the system installed with the Printer DCA. This only needs to be done for devices that you want to receive SNMP traps from.

After SNMP traps are enabled on the Printer DCA, each SNMP trap received will trigger the Printer DCA to perform a regular data scan on only the device that sent the SNMP trap. The results from this scan will be sent to the central server as soon as possible. Once the server has processed the information, and performs the next scheduled check for new alerts, the corresponding alert will be created in PrintFleet Optimizer.

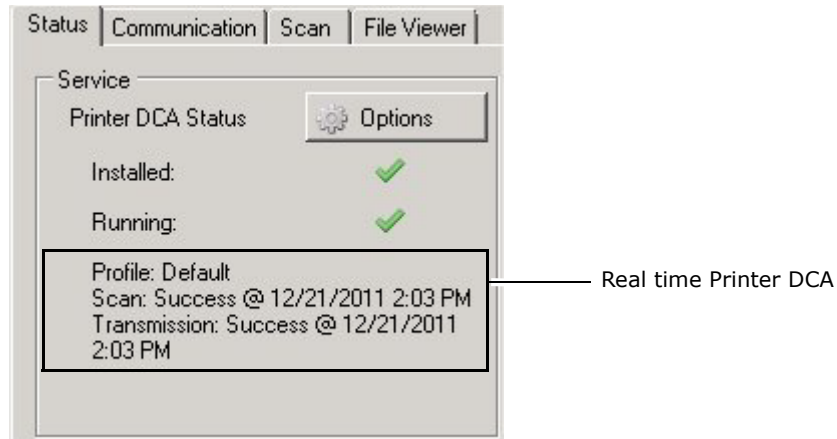
To enable SNMP traps:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **Advanced** tab, in the **Miscellaneous** area, select the **Enable SNMP Traps** check box.
3. Click **Save**.

Disabling real time Printer DCA status

By default, during a Printer DCA scan, the Printer DCA will display the real time status of the scan under the **Status** tab. This includes the profile name of the current scan, the IP address currently being scanned, the total number of IP addresses in the scan profile, and

the number of IP addresses in the current Printer DCA scan that have already been scanned.



You can disable this feature, if necessary.

To disable real time Printer DCA status:

1. Under the **Advanced** tab, in the **Miscellaneous** area, click to disable **Show Realtime Printer DCA Status**.
2. Click **Save**.

Setting the WebPage timeout

The **WebPage Timeout** setting control how long the Printer DCA waits if any webpage data scraping is done. By default, this value is set to 7500 milliseconds. Increasing the value may increase the completeness of a Printer DCA scan, but will also increase the amount of time it takes to complete a network scan.

To change the WebPage timeout value:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see "Managing scan profiles" on page 14.
2. Under the **Advanced** tab, in the **Miscellaneous** area, type or select the new timeout value in the **WebPage Timeout** box.
3. Click **Save**.

2.6 Viewing queue, archive, and log files

For troubleshooting purposes, you might want to view Printer DCA queue, archive, or log files.

Queue and archive files are copies of Printer DCA scan result files; queue files have not yet been transmitted to the central server, while archive files have already been transmitted. The presence of queue files indicates that the Printer DCA is not successfully transmitting information to the central server (unless the Printer DCA is in the process of transmitting the most recent file). Queue

and archive files are encrypted in the proprietary .pfd format and contain the complete results of a single Printer DCA network scan.

Log files are in .log format and are not encrypted. Log files contain summary information for all Printer DCA scans that occurred on a specific date, including scan times, transmission results, Printer DCA application information, intelligent update actions, and the IP addresses and vendors of discovered devices. Log files do not include specific printing device data fields (meters, toner levels, etc.).




Note

From Printer DCA you can also view the log files for Local Print Agent using the Printer DCA - Local Agent Management tool. For more information, see "Viewing Local Print Agent log files" on page 35.

Queue and archive files can only be viewed using the File Viewer included in the Printer DCA. Log files can also be viewed using this, but can also be viewed in any word processing or other application that supports .log files.

To locate the correct file, queue and archive file names have date and time stamps as part of the file name, and log files have a date stamp.

To view queue, archive, or log files in the Printer DCA:

- Under the **File Viewer** tab, do one of the following:
 - To open and view a queue file, click the file folder icon () beside **Total files in queue**, and select and open the desired file.
 - To open and view an archive file, click the file folder icon () beside **Total files in archive**, and select and open the desired file.
 - To open and view a log file, click the file folder icon () beside **Open Log file from**, and select and open the desired file, or select a date via the dropdown.

Alternatively, you can drag and drop any of the files into the File Viewer area.

Deleting old archive and log files

By default, the Printer DCA automatically deletes archive and log files after 30 days. If necessary you can adjust the number of days before these files are deleted, or even stop the Printer DCA from deleting the files at all.

To change the period after which the Printer DCA automatically deletes old archive files:

- Under the **File Viewer** tab, use the **Keep archived files for** combo box to specify the maximum number of days you want to retain archived files. Set the value to 0 if you do not want older archive files to be automatically deleted.

To change the period after which the Printer DCA automatically deletes old log files:

- Under the **File Viewer** tab, use the **Keep log files for** combo box to specify the maximum number of days you want to retain log files. Set the value to 0 if you do not want older log files to be automatically deleted.

2.7 Configuring language and read/write settings

The language for the Printer DCA will be automatically selected during installation, based on the default language selected for your Windows operating system.

To change the Printer DCA language settings:

- On the **Options** menu, point to **Language**, and then do one of the following:
 - Click **Windows Default** to toggle using the default language for your Windows operating system.
 - Select the appropriate language from the list.

The Printer DCA has full write permissions enabled at installation, but read-only permissions can be set through use of a password. This will prevent anyone without the password from changing any of the Printer DCA settings.

To make the Printer DCA read-only:

1. On the **Options** menu, point to **Read-Only Mode**, and then click **Read-Only**.
2. In the **Set Password** dialog box, enter the password you want to use to disable read-only mode, and then click **OK**.

To disable read-only mode:

1. Click **Unlock** in the lower right corner of the Printer DCA.
2. In the **Enter Password** dialog box, enter the password currently set for read-only mode, and then click **OK**.

The password for read-only mode can be changed during read-only mode, provided you have the current password.

To change the read-only mode password:

1. On the **Options** menu, point to **Read-Only Mode**, and then click **Change Password**.
2. In the **Enter Password** dialog box, enter the current password for read-only mode, and then click **OK**.
3. In the **Set Password** dialog box, enter the desired new password for read-only mode, and then click **OK**.

2.8 Updating the Printer DCA software

To take advantage of the latest data collection capabilities, feature enhancements, and bug fixes, it is important to periodically update the Printer DCA software.

You can update the Printer DCA manually, or you can update remotely using Semaphore if Intelligent Update is enabled. See “Enabling Intelligent Update” on page 12 and “Remotely managing Printer DCA installations using Semaphore” on page 39.

To update the Printer DCA software manually:

- On the **Help** menu, click **Check for Updates**.
- The update type allows for installation of Beta and Alpha releases (if available), or restricts updates to only stable releases.

2.9 Reviewing the End User License Agreement (EULA)

If necessary, you can access the EULA via the Help menu.

To access the EULA:

- On the **Help** menu, click **Review EULA**. The EULA is displayed. You can review it online, or print it out to review offline.

2.10 Understanding the network load associated with the Printer DCA

The following table shows approximate network byte load for various Printer DCA scans, compared to the network load associated with loading a single standard web page.

Table 4: Network Byte Load Associated with the Printer DCA

Event	Approximate Total Bytes
Loading a single standard web page	60 KB
Printer DCA scan, blank IP	5.2 KB
Printer DCA scan, 1 printer	7.2 KB
Printer DCA scan, 1 printer, 1 254 local IP addresses	96 KB
Printer DCA scan, network of 15 printers and 254 local IP addresses	125 KB

2.11 Printer DCA Command Line Options

If you want, you can use a command line option to import IP ranges to your Printer DCA scan list. This is the essentially the same as clicking the **Import** button on the **General** tab of the **Scan** tab in the Printer DCA application interface. If your IP ranges change frequently you could set up your system to run this command on a regular basis (say once a day during off hours), thereby ensuring that the IP range information is always current.

Note	This feature clears the existing list prior to import.
-------------	--

To import IP ranges from a command line:

- Use the command `PrinterDCA.Service.exe` with the following options:
 - `/task`: Currently the only supported task is 'ipimport'. This is case insensitive.
 - `/file`: Absolute path to file with IP list to import
 - `/profile`: This is optional; if not included, 'Default' will be used.
 - `/killgui`: Must be "true", or default of "false" is assumed.

Example:

```
PrinterDCA.Service.exe /task=ipimport /
file=c:\test.txt /profile=test
```

The command will return one of the following error codes (and an appropriate message):

- -1: General failure.
- 0: Successfully imported.
- 1: Malformed input file - not imported.
- 2: Could not find or access file.
- 3: GUI open, could not exclusively lock .pfc config file.

Chapter 3 **Managing local devices with Local Print Agent**

Local Print Agent allows the Printer DCA to obtain information directly from locally connected printing devices. There are three steps that must be taken to collect local printer data using the Printer DCA:

1. Add the IP addresses/ranges of computers connected to local printers to the Printer DCA network scan. See "Specifying which devices to scan" on page 14.
2. Enable the local device scanning option. See "Enabling scanning of network and/or local devices" on page 17.
3. Install Local Print Agent on computers connected to local printers (instructions follow).

The Local Print Agent application must be installed on each computer connected to a local printer that you want to collect information from. Ideally, Local Print Agent will be installed on all computers at any location where you want to collect local printer information. This will allow you to collect information from new local printers as soon as they are connected.

Once Local Print Agent is installed, you can monitor how each installation is doing, and make changes as necessary, using the **Printer DCA - Local Agent Management** tool provided with Printer DCA.

3.1 Installing Local Print Agent

There are three methods to install Local Print Agent:

- Manual installation from the local printer host computer
- Printer DCA push tool installation (manual and automated)
- Third party push tool installation

In environments that do not allow push installation tools, you may be required to manually install the Local Print Agent application on each computer connected to a local printer.

To install Local Print Agent manually from the local printer host computer:

- Run the `Local Print Agent.msi` file on the computer you want to install Local Print Agent on. The installation file is found by default in: `program files\Printer DCA\Support` folder. The installation file can be copied to a USB drive, CD, etc. for portability.

The Printer DCA has an embedded push install utility specifically for Local Print Agent. See “Performing a Push Install of Local Print Agent” on page 33.

In addition, you can schedule periodic push installs to your entire Printer DCA scan range to ensure that Local Print Agent gets installed to any new computers on the network.

To schedule regular push installs using the Printer DCA:

1. Under the **Scan** tab, make sure the correct scan profile is selected from the **Scan Profile** list. For more information on scan profiles, see “Managing scan profiles” on page 14.
2. Under the **Local** tab, select the **Enable Push Install** check box.
3. In the **Change Push Install Credentials** dialog, enter the credentials of the user that belongs to the local administrator group on the target OS.

Warning

These credentials will be saved in an encrypted format in the Printer DCA. If you do not want these credentials saved, do not enable scheduled push installs.

4. Beside **Start**, select a start date and time for the automated push install.
5. Beside **Repeat**, select the interval you want to perform the push install at.
6. Click **Save**.

If the environment already uses a third party push installation tool, you can use that to push install the `Local Print Agent.msi` file. The installation file can be found in the `Printer DCA\support` folder on the system installed with the Printer DCA (its default location). Refer to the user guide for the third party push installation tool for further instructions.

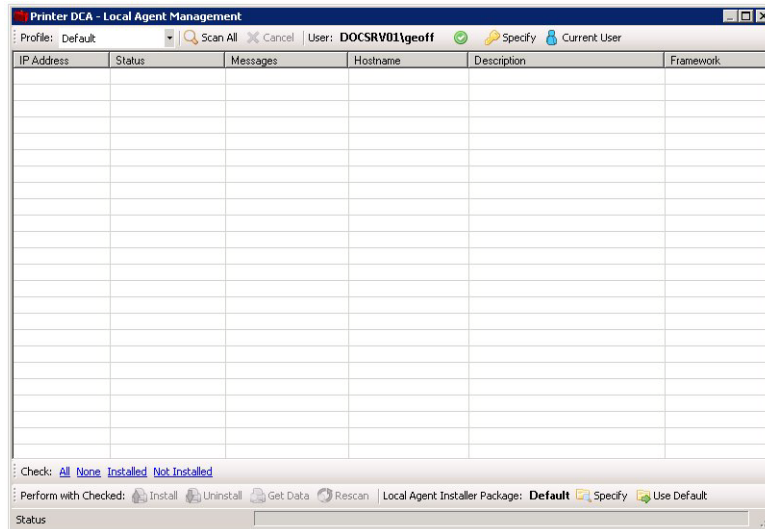
3.2 Managing Local Print Agent

Printer DCA includes a separate user interface called **Printer DCA - Local Agent Management** which you can use to manage Local Print Agent.

Starting the Local Agent Management tool

To start the Printer DCA - Local Agent Management tool:

- From the **Tools** menu in Printer DCA, click **Local Agent Management**. The **Printer DCA - Local Agent Management** window opens.



Scanning for Local Agent installations

Each time you start the **Printer DCA - Local Agent Management** tool, it displays an empty table. To populate the table, you need to perform a scan of the network to locate any Local Agent installations.

To scan the network for Local Agent installations:

- From the **Profile** drop-down list, select the scan profile that includes the IP addresses you want to scan. By default, the **Printer DCA - Local Agent Management** window opens with the scan profile currently selected in Printer DCA. If you want to create a new scan profile, you must do so using the Printer DCA. For more information on scan profiles, see "Managing scan profiles" on page 14.
- If necessary, specify a different user account for Local Agent Manager to use. For more information, see "Changing the active user for Local Agent Management" on page 31.
- Click **Scan All**. PrintFleet scans the IP addresses associated with the specified scan profile, and displays the results.

Changing the active user for Local Agent Management

By default, when performing various functions (such as scanning, installing, and uninstalling) **Printer DCA - Local Agent Management** uses the same account you had been using in Printer DCA. (The user name is displayed beside **User:** at the top of the window.) If you need to perform these functions as a different user (such as an administrator), you can specify the user account you want Local Agent Management to use.

To change the active user for Local Agent Management:

1. At the top of the Local Agent Management window click **Specify**. The **Change Push Install Credentials** dialog opens.
2. Use the **Username**, **Password**, and **Domain** boxes to specify the credentials you want to use.
3. Click **OK**. PrintFleet will attempt to validate the credentials you supplied. If successful, a green check mark will appear beside the new user name at the top of the window.

To revert to the current Printer DCA user:

- At the top of the Local Agent Management window click **Current User**.

**Interpreting the
Local Agent
Management
scan results**

The Local Agent Management table displays one row for each IP address scanned. If necessary, you can click a column heading to sort the table by that column. Each row includes the following information:

- **IP Address**—The IP address that was scanned.
- **Status**—The status of Local Agent for that IP address (either Installed or Not Installed). If Local Agent is installed, the Status column also displays the version number of the installed Local Agent.
- **Messages**—Displays the brief message sent from Local Agent to the Printer DCA regarding the most recent action you performed, such as the last scan, install, or uninstall. The message might indicate some limited error information, or a timeout.
- **Hostname**—The hostname of the computer or device associated with the IP address.
- **Description**—Local Agent Management will try to provide some additional information. The information will vary depending on what object is associated with the IP address. For example, if it is a computer, Local Agent Management will try to determine the operating system running on the computer, and display that (such as Microsoft Windows). If it is a printer, it will display the printer name. Not all IP addresses are associated with a specific object, so in those cases it will simply say **Unknown**. If no response was received from an IP address the description will say **Timed Out**.
- **Framework**—For IP addresses associated with Local Agents, Local Agent Management will try to determine and display the version of the .NET framework that is running. Local Print Agent requires .NET version 2 or higher in order to install and run successfully. For this reason this column is color coded to highlight potential problems: green indicates .NET version 2 or higher, red indicates a .NET version below 2, and yellow indicates an unknown .NET version.

Performing a Push Install of Local Print Agent

You can use Local Agent Management to push an installation of Local Print Agent to selected IP addresses.

To push install Local Print Agent from Local Agent Management:

1. If necessary, populate the Local Agent Management table by performing a scan. See "Scanning for Local Agent installations" on page 31.
2. Do one of the following:
 - Under the **IP Address** column, select the check box beside each IP address where you want to install Local Print Agent, then beside **Perform with Checked:**, click **Install**.
 - Right-click in the row of a specific IP address for which you want to perform an install and choose **Install** from the menu that appears.

Uninstalling Local Print Agent

You can also use Local Agent Management to uninstall Local Print Agent from selected IP addresses.

To uninstall Local Print Agent:

1. If necessary, populate the Local Agent Management table by performing a scan. See "Scanning for Local Agent installations" on page 31.
2. Do one of the following:
 - Under the **IP Address** column, select the check box beside each IP address where you want to uninstall Local Print Agent, then beside **Perform with Checked:**, click **Uninstall**.
 - Right-click in the row of a specific IP address for which you want to perform an uninstall and choose **Uninstall** from the menu that appears.

Checking the data returned by Local Print Agent

At some point you might want to check to see what data Local Print Agent is sending to Printer DCA (and through Printer DCA to PrintFleet Optimizer).

To check the data being sent by Local Print Agent:

1. If necessary, populate the Local Agent Management table by performing a scan. See "Scanning for Local Agent installations" on page 31.
2. Do one of the following:
 - Under the **IP Address** column, select the check box beside each IP address where you want to check the data, then beside **Perform with Checked:**, click **Get Data**.
 - Right-click in the row of a specific IP address for which you want to check the data and choose **Get Data** from the menu that appears.

The data for the selected IP address(es) are displayed in the Printer DCA - File Viewer. You can view the data in either XML or

spreadsheet format by clicking the **XML** tab or **CSV** tab respectively.

Rescanning specific IP addresses

If necessary, you can have Local Agent Management rescan one or more IP addresses. You might do this if you are waiting for a recent change to appear (such as a recently installed printer), or to get a result for an IP address that had timed out from a previous scan. You could also just click **Scan All** to scan the entire IP range in the current scan profile, but with a large IP range you might get other IP addresses timing out, so sometimes it helps to rescan just the IP address(es) you are interested in.

To rescan specific IP addresses:

- Do one of the following:
 - Under the **IP Address** column, select the check box beside each IP address you want to rescan, then beside **Perform with Checked:**, click **Rescan**.
 - Right-click in the row of a specific IP address you want to rescan and choose **Rescan** from the menu that appears.

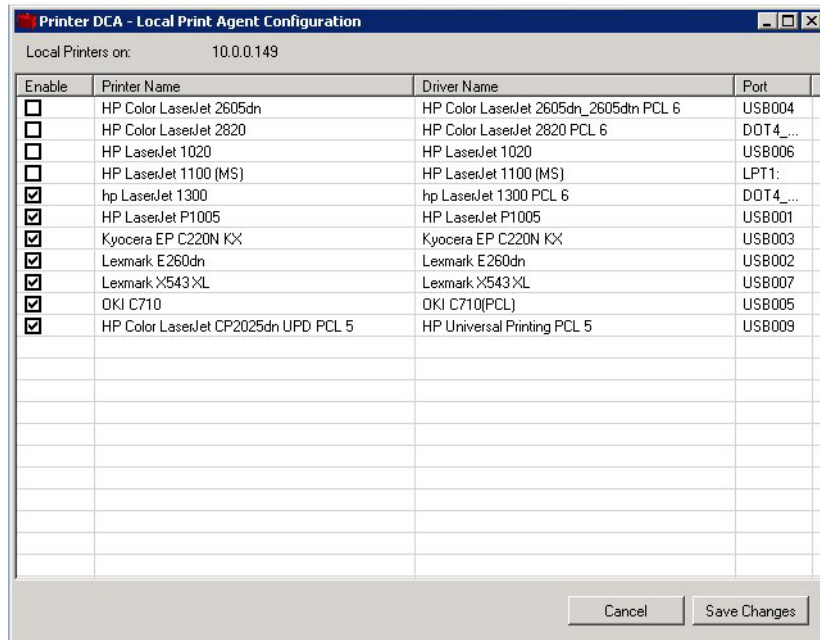
Configuring a Local Print Agent installation

If an IP address has Local Print Agent version 4.1.2 (or later) installed, you can configure that Local Print Agent installation from Local Agent Management. This allows you to suspend the scanning of selected local devices connected to the machine at that address. For example, in some cases a device might print out unwanted pages each time it is scanned. If this occurs, you could easily suspend the scanning for that device.

To configure a Local Print Agent installation:

1. Right-click in the row of a specific IP address you want to configure (and which has version 4.1.2 or later installed), and choose **Configure** from the menu that appears. The **Printer DCA - Local Print Agent Configuration** dialog opens. Any

local devices connected to the specified machine will be listed.



2. In the **Printer DCA - Local Print Agent Configuration** dialog, in the **Enable** column, click a check box to toggle the state of the associated device between Enabled (checked) and suspended (cleared).
3. Click **Save Changes**.

Viewing Local Print Agent log files

If necessary you can view the log file for a Local Print Agent from Local Agent Management. The log file records the requests received by the specified Local Print Agent.

To view a Local Print Agent log file:

1. If necessary, populate the Local Agent Management table by performing a scan. See "Scanning for Local Agent installations" on page 31.
2. Right-click in the row of the Local Print Agent for which you want to view the log file, then choose **Get Log Files** from the menu that appears. The **Select A Log Date** dialog box opens.
3. In the **Select A Log Date** dialog box, specify the date of the log file you want to view, then click **Accept**. The log information for the specified date is displayed in your default text viewer (such as Notepad).

Changing the Local Print Agent version to install

Each Printer DCA automatically includes a Local Print Agent that it will use by default for push installs. If necessary, you can select a different Local Print Agent installer to push from Local Agent Management. You might do this if you need a specific Local Print Agent version for an older device (usually as directed by technical support).

To change the Local Print Agent installer to use with Local Agent Management:

1. At the bottom of the Local Agent Management window click **Specify**. The **Locate Local Print Agent Installer** dialog opens.
2. Browse to and select the Local Print Agent installer you want to use.
3. Click **Open**. The text at the bottom of the Local Agent Management window changes from **Default** to **User Specified**. If you hover the mouse over the **User Specified** text, a tooltip will appear indicating the path and file name of the selected Local Print Agent installer.

To revert to the default Local Print Agent installer:

- At the bottom of the Local Agent Management window click **Use Default**.

Chapter 4 **Printer DCA Settings in PrintFleet Optimizer**

The Printer DCA is one component of the PrintFleet Optimizer system. For this reason, some of the settings which affect the Printer DCA are located in the Administration area in PrintFleet Optimizer. Those settings are documented in the *PrintFleet Optimizer User Guide*, but are referenced here as well for your convenience.

This chapter discusses:

- Managing Printer DCA installations
- Troubleshooting stale data issues
- Providing technical support
- Distributing software updates

4.1 **Managing Printer DCA installations**

Each Printer DCA installation requires a PIN Code to activate to run. These PIN Codes can be generated and managed using PrintFleet Optimizer.

Generating PIN Codes for Printer DCA

To generate a PIN Code for Printer DCA:

1. On the **Administration** menu, select **DCA Administration**, and then click **New DCA**.
2. Select **Version 4.0 or greater**.
3. Select the appropriate group from the dropdown list or click **Create New Group** button.
4. Define the Printer DCA information: enter the **DCA Name**. Optionally, set an Expiry date by selecting the calendar button and selecting a date.
5. Click **Create DCA**. The Pending PIN Code is generated and displayed in the DCA Information page's General Information tab. The PIN Code can be emailed to an appropriate person via **Send this PIN via email**. Alternately, the PIN Code can be copied and pasted into the DCA Activation screen. This PIN Code remains visible in the General Information tab while the Printer DCA is in a Pending Activation status. Once this PIN Code is used to activate a Printer DCA client, the Printer DCA has an active status and the PIN Code will no longer be visible.

Managing Printer DCAs

You can check the status of a Printer DCA installation via Printer DCA Listing page. Printer DCA information can be viewed or edited at any time. A Printer DCA can also be deleted or set to inactive or active. A new PIN Code can also be created for a Printer DCA version 4.0 or greater.

Note

When a Printer DCA expires, is deleted, or is set to inactive, the next time that Printer DCA connects it will effectively go into a state of hibernation. It will not perform any further scans, or transmit any other files, but will perform a status check once every 24 hours. If a subsequent status check finds that the Printer DCA is once again been set to an active state, the Printer DCA will automatically exit the hibernation state and resume normal operation.

To check the status of a Printer DCA:

1. On the **Administration** menu, select **DCA Administration**.
2. In the DCA Listing page, the status of the Printer DCA will be visible in the Status column:
 - Pending Activation – PIN Code has not been used to activate Printer DCA client.
 - Active – Printer DCA has been activated using PIN Code.
 - Inactive – the Printer DCA has been set to Inactive or has expired.

To view Printer DCA information:

1. On the **Administration** menu, select **DCA Administration**.
2. Click on the Printer DCA name link for the Printer DCA you want to view from the **Data Collection Agent (DCA) Listing**. The DCA Information page's General Information tab is displayed for the selected Printer DCA.

To edit an existing Printer DCA:

1. Click the **Edit** option beside the Printer DCA in the **DCA Listing** page. Alternately, in the DCA Information page, click **Edit**.
2. Make changes to the **DCA Name**, **Group**, or **Expiry Date** fields, and then click **Save**.

To delete an existing Printer DCA:

1. Click the Delete option beside the Printer DCA in the **DCA Listing** page, or in the DCA Information page, click **Delete**.
2. A dialog box prompts you to confirm your wish to delete this Printer DCA.
3. Click **Confirm** to complete the Printer DCA deletion, or **Cancel** to abort the Printer DCA deletion. After deletion, files will not be processed for the Printer DCA, but the Printer DCA will enter a hibernation state. If you want to completely remove the Printer DCA, you will need to uninstall it.

To set a Printer DCA Inactive:

1. In the DCA Information page for an active Printer DCA, click **Set Inactive**.
2. A dialog box prompts you to confirm your wish to set this Printer DCA to Inactive.
3. Click **Confirm** to set to inactive or **Cancel** to abort. With an Inactive status, files will not be processed for the Printer DCA, but the Printer DCA will enter a hibernation state.

To set a Printer DCA Active:

1. In the DCA Information page for an inactive Printer DCA, click **Set Active**. The Printer DCA will have an active status and files will be processed.

To create a new PIN Code for a Printer DCA:

1. In the DCA Information page, click **Create New PIN**.
2. A dialog box prompts you to confirm your wish to create new PIN for the Printer DCA.
3. Click **Confirm** to create a new PIN Code or **Cancel** to abort. The new PIN Code will be generated and the Printer DCA will be in a pending activation state. Until reactivated, files will not be processed for the Printer DCA.

Remotely managing Printer DCA installations using Semaphore

You can post commands for the Printer DCA to check using PrintFleet Optimizer's Semaphore capability. Semaphore commands are only available for active Printer DCAs that have processed files at least once. Posted commands will be followed by the Printer DCA if it has **Intelligent Update** enabled. See "Managing the Printer DCA service" on page 8 and "Enabling Intelligent Update" on page 12.

To use Semaphore to send a command to a Printer DCA client:

1. On the **Administration** menu, select **DCA Administration**. In the **DCA Listing** page, click on the Printer DCA name to display the DCA Information page and then click the **Semaphore** tab.
2. In the **Semaphore** tab, click **Add a new command**.
 - From the Command type dropdown, select one of the available options.
 - Input any required information (see Table 5).
 - Select a Run Schedule option: select **ASAP** or select a date from the calendar and enter a time.

- Click **Create**.

Table 5: Available Semaphore Commands for the Printer DCA

Command	Function and Required Values
DEACTIVATE	Stops the Printer DCA service. Does not require any input values.
UPDATE	Updates the Printer DCA software to the most recent available on the PrintFleet Optimizer server. Does not require any input values.
MIBWALK	Performs a complete MIB walk (device scan) for one device. Device's IP must be entered into the IP Address input box.

4.2 Troubleshooting stale data issues

Devices will appear as stale in PrintFleet Optimizer if the Printer DCA has not been able to collect data from the device for the number of days specified in the **Days before device stale** configuration setting in PrintFleet Optimizer.

If customers are showing stale devices without an obvious explanation, the customer should be contacted to determine the reason. A device may appear as stale for many reasons, including:

- The device has been removed from the network
- The device is turned off
- The transmission port on the network is closed (all devices display as stale)
- The computer installed with the Printer DCA is turned off (all devices display as stale)

4.3 Providing technical support

The following best practices are recommended for providing technical support to your PrintFleet customers:

Note	All issues should be tracked with a custom or commercially available CRM (Customer Relationship Management) software solution.
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- Track all incoming calls and emails. Specifically, record the caller's name, phone number, company, the reason for the call,

whether or not there was a resolution to their situation, and what the resolution was or what the next step is.

- Use email as a support tool, since it automatically records all of the details in writing.
- Ensure that callers phoning support, as much as possible, do not have to wait longer than five rings to get a technical person on the line.
- Try to deliver resolutions to routine problems within 30 minutes of the support call. There should be a plan in place that specifies levels of problems and their expected response times.
- Make self help materials available to your customers to minimize the need for telephone and email support.
- Review support call records on a weekly basis to flag any recurring issues that might be preventable by changing the installation or initial training process.
- Monitor new customers and installations closely for the first two weeks while they are getting started with the software.
- Consider providing 24-hour support using mobile devices.

4.4 Distributing software updates

It is the responsibility of the PrintFleet administrator to distribute software updates to their clients as they see fit. Updates at the client location would primarily be for the Printer DCA. Updates for the Printer DCA can be distributed to remote installations from your central server.

Appendix A Printer Data Collection Agent Checklist and Installation Requirements

Please use the following guide to ensure you are meeting all installation requirements prior to installing the PrintFleet Printer DCA (Data Collection Agent).

Network requirements:

- TCP/IP configured
- The following ports must be opened on the firewall:
 - Port 443/TCP (HTTPS), Port 80/TCP (HTTP), or an alternate port (as an option, can use HTTP or HTTPS and is dependent on the PrintFleet Optimizer server configuration). These ports need to allow outbound traffic only to the PrintFleet Optimizer server.
 - Port 35/UDP, Port 35/TCP should be opened on computers where Printer DCA 4.x and Local Print Agent are installed. These ports need to allow inbound traffic on the Local Print Agent machine and outbound traffic on the machine hosting the Printer DCA.
 - Port 161/UDP should be opened on the machine hosting the Printer DCA to allow outbound traffic to devices on the network.
 - If you are planning to use SNMP traps, Port 162/UDP should be opened to allow inbound traffic from any IP address being used for SNMP traps. For more information, see "Enabling SNMP traps" on page 23.

System requirements:

- Hardware: Non-dedicated server powered on 24 hours a day, 7 days a week. If a server is not available, the Printer DCA can be installed on a desktop computer system powered on 24 hours a day, 7 days a week, but this method carries a risk of transmission difficulties.
- Network card: 100mbit or higher
- RAM: 512MB or higher
- Internet connected browser
- Requirements for Local Print Agent
 - Operating System: Microsoft Windows Server 2008 R2 or Windows Server 2012. Otherwise, if not running on a server: Windows 7 or Windows 8.
 - Microsoft .NET Framework (latest version or latest previous version)
Beginning with .NET 3.5 SP1, the .NET Framework is considered a component of the Windows OS. Components follow the support life cycle of their parent product or platform.
- Requirements for Printer DCA 4.x:
 - Operating System: Microsoft Windows Server 2008 R2 or Windows Server 2012. Otherwise, if not running on a server: Windows 7 or Windows 8.
 - Microsoft .NET Framework (latest version or latest previous version)
Beginning with .NET 3.5 SP1, the .NET Framework is considered a component of the

Windows OS. Components follow the support life cycle of their parent product or platform.

Virtualization software support:

If you want to install the Printer DCA on a virtual machine, the VMWare GSX virtualization software will support the installation.

Important:

- Do not install the Printer DCA on a laptop.
- PrintFleet does not recommend using a VPN.

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